

NO MUSINGS column this week, no mail delivered monday, so....next week we will have another one of those double sized MUSE sections. Inside as a replacement, of sorts, is another super you-build-it article by Mark Connelly. (Keep those articles coming our way Mark. And the same goes to all the rest of you! - HQ)

APRIL FOOLS ISSUE material should be in our hands here no later than MARCH 24th . And PLEASE keep it clean and so forth, (stuff on FM and other spectrums will be fine as this is the issue almost everything goes!!) So, dig out those funny items and get them to us real soon, there isn't much time left!!

MEDIUMWAYE GUIDE , 5th edition, compiled by Robert Chester and presented by the Australian Radio DX Club. More info and facts on this book can be found on page 8 inside.

NRC NIGHT PATTERN BOOK UPDATER 34 Maps, each contain new stations not shown on the current maps, can be inserted as a change page or you can redraw them onto your original book pages. Maps are same scale as set presently used. Patterns are drawn sharp and are as accurate as can be found anywhere!! US\$3.50 this price includes shipping !!! Order from the Publication Center. And please allow 4 to 6 weeks for delivery.

From J.G. Herkimer," For Sale: NRC 3 Foot Altazimuth loop, constructed by Steve Bohac, in brand new condition. (used once) \$165.00 Prefer local pickup.
Reason for selling: I have two of them! James G. Herkimer, 3255 South Drive, Reason for selling: I have two of them! James G. Herkimer, 3255 South Drive, Caledonia, NY 14423 (716) 538-4868 [Caledonia is 17 miles south of Rochester]

Remaining Publishing Schedule for Volume 51: ISSUE MASTHEAD DATE PUB SESSION DATE ISSUE MASTHEAD DATE PUB DATE

21	MARCH	5	FEBRUARY 26	26	MAY 7	APRIL 29
22	MARCH	12	MARCH 4	27	JUNE 11	JUNE 3
23	MARCH	19	MARCH 11	28	JULY 16	JULY 8
24	APRIL	2	MARCH 25	29	AUGUST 20	AUGUST 12
25	APRIL	16	APPTI 8	30	SEPTEMBED 24	CEPT 16

Oh yea, almost forgot. Hope you like the new type found on this page, we've noticed that you've noticed, thanks for the postcards, And yes, we will probably use this from now on (Dr. Gruis will be glad to hear this, hi- mike). Also word from the NRC Data Center, they say that all orders of the address label, those ordered by Feb lst, are now in your hands. Also please check over your mailing label, found on the back page, make sure your mame is correct and the address is proper with the right 'street' or 'drive' or whatever, if that part pertains that is. If you didn't get this issue then your address label is wrong, hi. Also, thanks for those sending in your votes for keeping mikee in the lake, the extended peace and quiet is greatly appreciated around here. ("here-here", "yea", = [comments from HQ staff])

#### CPC TESTS

NONE scheduled for the near future. And please, if possible, when scheduling a test with a station try to get as much lead time as possible, preferably a month in advance would be nice. Thanks,

#### LOOK INSIDE:

NO Musings Column this week. Look for it next issue.

2AM Switch	9Seven Passive Tuners	20Verie Game Column
3DDXD	18Stn Profile - CKNX	22Ramblin' Back
7IDXD	19Contests update	23HAP Page

## AM SWITCH

JERRY STARR C/O WSRD RADIO 401 N. BLAINE AVENUE YOUNGSTOWN. OHIO 44505

CALL	LETTER	CHA	NGES							
01d c	all:			New	call:	01d c	all:		New	call:
620	WLFF *New	SC	Cayce Window Rock		WABX	1340	KBBL	TX	Lubbock Milwaukee	KFMX WBCS
760	*New	MA	Leicester		WVNE	1360	KEIV	CA	Modesto	KZUN
900	WRC	DC	Oakdale Washington		WRRC	1380 1400	WXAM	AZ VA	Parker Charlottesville	WKAV
1080	WZTQ	WV	Hurricane		WVKV	1440	WGVL	SC	Greenville	WSSL
1100	*New	MO	Webb City Limon		KKLL	1450 1490	WQCN	GA FL	Savannah Immokalee	WZOR
1210	*New	WY	Afton		KRSV	1550	*New	WY	St. Stephens	KIGB
1270	KROI	OR	Sparks Eugene		KYKN	1580 1590	WCLS	GA	Columbus Brockport	WIZY

#### APPLICATIONS FOR NEW STATIONS

1300 WLUY TN Nashville

Reston: 1000 D1 730 Lake Placid: 250 D1 Eldon: 1000 D1 FL 750 1110 Highalnds: 10000 D1

RI Hope Valley: 1000 (500 CH) D1 FL Lake Mary: 1000/5000 U4

#### GRANTS FOR NEW STATIONS

NV Lovelock: 1000/250 U1 WY Afton: 5000/250 U1

#### APPLICATIONS FROM EXISTING FACILITIES

KMLO CA Vista: night power to 1000 1300 WIMG NJ Ewing: night power to 5000

#### GRANTS TO EXISTING FACILITIES

1170 WDTB MI Diamondale: to 1180 kHz 1000 D1

Interesting to note that the new facility in Afton, WY was also granted a CP for a new FM station (KRSY-FM) at the same time. It is very rare to see grants made for new AM and FM facilities in the same city to the same company at the same time. St. Mary, WV was the last time, that was in 1982, can't remember when it happened before that. And, by the way, we ought to award some sort of prize to the member who can accuratly guess how many times calls on 1340 in Milwaukee have been changed to WMKE and WBCS and back. According to my records, it's been WMKE five times and WBCS four times. Anybody know exactly what this is all about? Industry Offers Advice On

All for now, more if it happens.

73 and Good DX.

Jerry Starr & Buffalo K. Foonman

### No more big band sound

WMLi-AM 1250, Bangor, has dropped the big band sound in faver of a more contemporary music for mat. According to Johnny Walker, program direc-tor, "the market just wasn't large enough to support a highly specialized format such as the "Music of Your Life."

Your Life."

As an adult, AM-music station, WMLI will play
the best pop hits, standards and ballade of the 'So.
through the 'Pos. 'Walker said Festered artists will
include Barry Manilow, Barbri Streinnad, Keney
Rogers, Steve Laurence and Eddie Gormet,
The Federal Communications Commission recently granted WMLI permission to extend operating hours to 6 p.m. daily.

Sudbrink also suggested that, to become eligible for assistance, a station must lose at least 10% of its potential nighttime audience, and suffer interference at least 50% of the time on 60 continuous nights.

Cuban Interference Aid

The PCC's piek for guidance on how to spend \$5 million voted by Congress to compensate AMs harmed by Cuban inferference has drawn a number of industry coments. Most asked for a simple procedure, and questioned the Commission's suggestion that \$2 million of the funds will be need-

tion use is milled of the filled will be beeded to admissister the program.

Among the commenters were three groups directly affected by Cuban isoterference — Sesquehama's WQBA/Mismi, Sudbrink's WNWS/Mismi, and

Plough's WSUN/St. Petersburg, Sudbrink says it spent \$1 million to move its transmit-

ter and raise power to offset interference, and thus objected to the FCC's tentative

plan to set a limit of \$250,000 in aid per sta-

The PCC's plea for guidance on how to

REMINDER: For those of you that write overseas, we remind you that all clubs within ANARC, of which we are part, have agreed to protest to those countries that continue to practice intentional jamming of international shortwave broadcasts. We ask that you send a letter or postcard to stations in those countries protesting their practice of intentional jamming.

# DOMESTIC

DAVE SCHMIDT 42 CHELWYNNE RD. CASTLE HILLS NEW CASTLE, DE 19720

Here is the NRC column which is almost as exciting as a visit to GLEN CAMPBELL, PA (there is such a place!). When sending your items in, please use only one side of the paper, type or neatly write, EST, skip a line (leave some space) between items, and all that jazz. And were off again:

SPEC	IAL:		
680	WCNN	GA	NORTH ATLANTA - Power is 25000/10000 U2, not on CP yet
1120	WCXM	GA	
1210	KASY	WA	ID for AM & FM, ads then off w/no offical s/off. (KG-PA) AUBURN - Noted 1/30 running AN w/female and r. ID 0412 o/ WCAU, now running 2500/1000 U1, soon to be 10000/1000 U1 w/hopes eventually go to 10000/5000 U2. (DKK-CA) Sked now MSP as of 1/30. (BH-WA) Who'll be the 1st to hear
1300	MLUY	TN	NASHVILLE - 1/15 1805 female and'r w/end of news. TD's
1440	WBGA	GA	BRUNSWICK - 1/23 2045 brief fade in w/local talk, time
1560	ксно	WA	check, ID, ex-WGIG. (NAP-AL) HOQUIAM-ABERDEEN - 1/18 2100 1st day on PSSA operation w/BFL/ EZL music, s/off mentions to tune 95.3 FM, left over from
1580	WIBY	GA	Top 40 days. (Bh-WA) I don't care much for leftovers!(DS)
DX TE	STS:		WAT I All Day Country

1580 WZKY NC 1/30 poor u/WSRF w/music and ID's. (KG-PA) WADC --

#### FREQUENCY CHECKS:

1st Mon - KQIK-1260 2/6 0300-0315 per list w/TT, code ID's. (BH & NH-WA) 2nd Fri - WHBG-1360 w/TT per list. (DS-DE) WRTA-1240 w/TT per list. (DS-DE) WSHP-1480 not noted. (DS-DE) WRAW-1340 not heard. (DS-DE)

2nd Wed - WHUB-1400 0145-0150 w/TT, ID's each 2 minutes.

#### EMERGENCY BROADCASTS:

WLIX NY BAY SHORE-ISLIP - 1/18 1811-1824 good w/explanation as to why on past 1800 s/off, snowstorm traffic reports and cancellations, said would be on til 1900. (JB-NY) KFGO FARGO - 2/4 on non-DA after sunset w/blizzard info. (WCM-ND) KINGWOOD - 1/18 0701 all alone w/ID and storm related WPSP WV information. (JB-NY)

#### MIDDAY - MIDNITE:

WAUSAU - 1/28 1435 fair w/MoR, ads. (SP-WI) HARRISONBURG - 1/17 1800 very good w/weather, AP news. (JB-NY) BLOOMSBURG - 1/17 1800 faded in o/WSVA w/weather, Jingle/ WSAU WI WSVA VA MILH ID and rock music. (JB-NY) Hard or soft rock? (DS)
PHILADELPHIA - 1/17 1807 strong w/weather, oldies and using
"Famous 56" slogan, sounded like the old WFIL of 10 to 560 WFIL PA 15 years ago! (JB-NY) WFRB MD

FROSTBURG - 1/29 1700 strong w/dual AM-FM ID into news.(JB) 590 WARM PA SCRANTON - 1/21 1642 good in CKEY null w/community calendar activities and notes. (JB-NY) Things to do in Pittston? (DS) IDAHO FALLS - 2/5 2000 much wanted, usually to much KUGN/KHQ KID

but in fairly good tonite w/Herb Alpert music, nice jingle/ ID, CBS news, KUGN partially nulled. (BH & NH-NA) NEW CARLISES - 1/17 1855 ID in French, news and weather.(JK) 610 620 WSKQ NEWARK - 1/17 1803 very strong w/"Ka-Coo" slogan in Spanish

during what may have been a newscast. (JB-NY) 640 KGVW MT BELGRADE - 2/3 1858-1901 Christian music, program schedule

change, ID and UFI news, best signal on this guy yet!(WCM-ND) RALEIGH - 1/21 2203 good w/NBC news, weather and ID, oldies 680 WPTF request program. (SP-WI) 730

MERRILL - 1/28 1438 fair w/PSA, ID. (SP-WI) MADISONVILLE - 1/31 1839 fading up to a readable level w/ ID then CV music. (HJH-PA) Murphy is wrong again! (DS) WFMW KY VANCLEVE - 2/4 1807-1815 steady atop channel w/news, sports, weather, short religious program and s/off, hours given as 0600-LSS Mon. thru Sat., 1200 til 1700 Sun. (DS-DE)

WIZE

1	1		
-	730	WLIL	TN
	790	WSGW	MI
	860	CBFK2	
	900	CKBI	SK
	930	WSOC	NC
	1070	WAPI	AL
		WIBC	IN
		WKDR	NY
		WNCT	NC
		WPLI	TN
	4000	WJKK	WV
	1080	KVNI	ID
	1110	WTIS	FL
		WJML	IM
	1150	WCRK	TN
		WYNS	PA
	1190	KADE	CO
	1210	KGYN	oĸ
	1230	UNID	O.A.
	1250	KNCO	CA
		WIBV	77
	1260	WNIC	MI
	1370	WMYD	RI
	1380	WYNK	LA
	,,,,,		
	1410	WMML	AL
		KQV	PA
	1420	WBRD	FL
		WRCG	GA
	1430	WIRE	IN
	1440	KPRO	CA
		KMED	OR
	1460	KSO	IA
		WPDQ	FL
		KENO	NV
	1470	WMBD	IL
	1480	MMMM	TN
	1540	KASA	AZ
		WPXZ	PA
	1550	KQXI	co
	.,,,,		

			(3)
1550	WORI	TN	OAK RIDGE - 1/17 1759 noted w/s/off on truck radio while driving home. (JK-MD) The truck or the radio? (DS)
1560	WJLY	PA SC	BRADDOCK - 1/29 1713 good w/ID noted during s/off. (JB-NY) LANCASTER - 1/21 1709 fair in WQXR fade w/local ad, jingle/
1570		NY	ID and CN music. (JB-NY) FREDONIA - 1/21 1734 fair w/weather and MoR music, apparently
	WCLR	AL	on PSSA power. (JB-NY) ONEONTA - 2/6 1829 fair w/s/off w/slow "Dixie". (WPT-DC)
	WTWB	FL	AUBURNDALE - 2/6 1814 fair w/s/off w/mention of studio and transmitter locations. (WPT-DC)
	WSWV	VA	PENNINGTON GAP - 1/17 1745 caught s/off on this elusive VA station, VA #116 logged and 30th on 1570 for me. (JK-MD)
1580	WLIM	NY	PATCHOGUS - 1/18 1748-1800 very good w/s/off o/CBJ w/EZL music and storm related cancellations. (JB-NY)
1590	WONX	IL	EVANSTON - 1/26 2020-2058 fair/good w/Spanish vecals and talk, some WAKR, English ID at 2058. (SP-WI)
MIDN	ITE - M	TDDA	Y:
550	KAFY	CA	BAKERSFIELD - 1/30 0435 atop w/PSA then Cw music, o/KOY,
560	CJKL	ON	KSFO-560 was off. (DKK-CA) KIRKLAND LAKE - 1/17 0051 good w/jingle/ID, rock music, all
600	KSJB	ND	alone on the channel. (JB-NY)  JAMESTOWN - 1/17 0041 weak w/jingle/ID, CW music w/WICC.(JB)
610	KDAL	MN	DULUTH - 1/19 0004 assumed to be them w/weather and giving wind chill as -48 at Duluth/Superior airport, followed by Larry King. (JB-NY)
660	UNID		2/4 0042-0100 noted syndicated Top 40 countdown program, didn't catch name. looped NNW in WNBC's null. who? (REO-MO)
710 780	KAPZ	AR	BALD KNOB - 1/18 0838 w/ad, jingle/ID, fair-good signal. (REO) 1/28 2014-2021 talk noted u/WBBM then some type of classical
700	ONID		or EZL music, looped WNW, no Cuban present, KROW? (REO-MO) Other than the wrong sectionsorry 'bout that! (DS)
880	WMDB	TN	NASHVILLE - 1/18 0826 w/B/Sol music, xlnt signal w/no sign of KRVN. (REO-MO)
910	KOYN	MT	BILLINGS - 2/2 0829-0832 o/rest w/CW music, ID and agriculture report, 1st time noted. (WCM-ND)
	WKCN	SC	N. CHARLESTON - 2/7, 2/8 0600-0700 mostly atop w/CNN and local
	*WSBA	PA	news, weather, time and ads. (KG-PA) YORK - 2/8 0035-0056 likely the one running PoP type tones
3.21			here, usually fair/good here nites. Just CKLY noted strong mixing w/OC and tones. (DS-DE)
940	CBW	TN MB	WARTBURG -2/6 0700 noted w/full data s/on w/SSB. (NAP-AL) WINNIPEG - 1/18 0821 1/talk show, local ID and mention of
1130	KAAB	AR	Gibbon on 1400, xlnt signal. (REO-MO) BATESVILLE - 1/30 0808-0810 w/local news and weather, good
	WPUB	sc	but soon faded. (REO-MO) CAMDEN - 2/8 0718 w/full data s/on in WNEW null, soon
	WPYB	NC	covered by WPYB. (KG-PA) BENSON - 2/9 0700-0715 strong in WNEW's null w/full data
1170	WOBM	NJ	s/on, 23rd Psalm, weather and CW music. (KG-PA) LAKEWOOD - 2/4 0645-0650 fairly good in WWVA's null w/vocal
	*WCAU	PA	SSB, s/on, MoR music, weather, Toms River ad. (KG-PA) PHILADELPHIA - 1/30 0042 noted on ET w/TT. (WPT-DC)
1220	WSLM	IN	SALEM - 1/21 0720 w/local weather, ID, fair-good in mess. (REO)
1230	*WEEX	PA	BASTON - 2/6 0020-0115+ very strong w/TT, no ID's but signal nulled the same as WEEX and their AN program (now CW) was
	KFPW	AR	missing. (KG-PA) FORT SMITH - 2/6 0000 surfaced briefly w/ID, CBS news. (EB-MO)
1250	WKBR	NH	
1280		FL	JACKSONVILLE - 2/8 0635-0659 way o/all on 500 watt PSA w/ news, talk and ads. (KG-PA)
1300	*UNID		WERE, no ID's noted, looping NE/SW. (DS-DE)2/8 0120-
			0155+ very strong o/WFBR w/TT, no ID's, possibly WXPX but no offfreq. growl noted. (KG-PA) The growl is still here, methinks it was WKCY-VA(DS)
	KMPS	WA	SEATTLE - 1/30 0300-0400 atop w/cw music, many ID's, w/slight bits of KWKW. KYNO was off, but on OC. (DKK-CA)
1310	KEIN	MT	GREAT FALLS - 1/30 0330-0400 w/CW music, KDIA off. (DKK-CA) JOPLIN - 2/2 0810-0814 w/ID, MO news, good but faded. (REO-MO)
1330	KPH	KS	WICHITA - 2/2 0816 w/trivia question, good but faded quickly
	KUKU	MO	to KUKU. (REO-MO) WILLOW SPRINGS - 2/2 0816-0819 fair-good w/talk, local news,
1340	WMRK	AL	local ads. (REO-MO) SELMA - 2/5 0055 clear ID in noise while hanging out here,
			faded up w/ID then quickly gone. (JK-MD)

to gettysburg battle field and eisenhower farm....local here days....jk-md....

#### paul swearingen dept....

(D.S. - The bill is on it's way, hi. -HQ)

now this thing finally gives up....can't shift into caps.....so will send the credits along for mike to type up and hope it comes out in a language close to english....we'll hold rk's beacon report and a load of station addresses til next week .... good dx ....

KG-PA	Kermit Geary, Walnut Port, PA	R390A, HQ180, LW, SM2	1.
BH-WA		FRG-7, SM-1	
NH-WA	Nancy Hardy, Aberdeen, WA	FRG-7, SM-1	
WiZ-cT	The Liz Wizard of Poquonock, CT	HQ145, Looped.	
HJH-PA	Harry Hayes, Wilkes Barre, PA	HQ-180, SM-2	
EB-MO		Superadio II, SM-2	
DKK-CA	Don Kaskey, San Francisco, CA	HQ140x, SM-2	
JK-MD	Joe Kureth, Uniontown, MD	SX43, Short LW	
WPT-DC	Bill Townshend, Wash. DC	ICFS5W	
REO-MO		Superadio	
NAP-AL		R390A, RF2900, Kowalski	Loop, LW
SP-WI	Sheryl (The Girl) Paszkiewicz		THE RESERVE OF THE PARTY OF THE
	Manitowoc, WI	DX302, DX400, MFJ-1020	Loop Inside.LW
JB-NY	Jerry Bond, Rochester, NY	HQ140XA, Loop	
TF-CT	Tony Fitcherbert, Fairfield, C'	I ICFS5W. RF2900	
WCM-ND		Zenith 731, Loop, LW	

INTERNATIONAL

CHUCK HUTTON 1035 LATHAM ROAD DECATUR.GA 30033 (404) 633-1198 BEFORE 2300 ELT

T	imes are GMT. For ELT subtract 5 hours. Deadlines are usually Monday
	ENGLE OF THE PROPERTY OF THE P
40	MICARAGUA R. Corporacion, Managua YNUW U230-0245 "Radio Corporacion,
in ()	trensmittendo beisbol" and pisy-by-pisys, xint 2/2. (Krueger)
>50	VENEZUELA YVKE R. Mundial Caracas om w/sports pgm covering South
	Americs and Caribbean area, 1D at 0352 Followed by "Musics Mundis!"
55	NICARAGUA VNS R. Diez v Nueve de Julio. Chinenders men w/hF non my
	NICARAGUA YNS R. Diez y Nueve de Julio, Chinendega men w/kE pop mx, women with ID, QRM de l'est CW 0451 2/1. Poor. (Frodge)
80	JAMAICA Galina HJR with rel pgm, RJR promo and ada, Caribbean mx,
	0501 possible SS snncr (not likely at all-CH) 0455 1/30 poor. (Frodge)
600	VENEZUELA YVMJ LV de 18 Fe Maracaibo with SID and sung anthem
	O400-0404, man with full ID 2/9 good. (Frodge)
20	CURA CMDA/CMGN Colon man with noticies de Cube to 0305, R. Hebelde
	ID and M. Rebeide Cadena Nacional ID, man with beisbol after nx //
	5/0 0300 2/1 good. (Frodge)
50	HONDURAS LV de Centro America HKVW San Pedro Sula 0250-0304 "esta
	es LV de Centro America en San Pedro Sula, La Voz de Honduras"
	during newscast, xlnt 2/2. (Krueger)
55	EE SALVADOR Sen Selvador YSS men end women with news end sports,
1	Testure on a German visitor, ID and Tutbol pgm 0405 1/10 fair.
	(Frodge)
60	HONDURAS LV de monduras HRM, Tegucigalpa 0304-0307 xint w/s8 nx,
	ID 2/2. (hrueger)
10	CUBA CHEC R. Liberacion, Arroyo Arenas with Hadio y TV Gubana promos
	by man and woman, K. Liberscion ID siso SS ballads at 0130 after
	pips 0125 1/21 fair. (Frodge)
20	UNED man with LA baladas, ID as "Emisors Bollvar" at 0455 2/9 u/
10	WGN, poor. (Frodge)
90	HUMDUHAS M. Honduras, Tegucigaipa 033440555 good W/EE and 35 MoR
	vocals, national nx, "Buenos noches Honduras, buenos noches centro-
	emericanos, desde Tegucigalpa, Radio Honduras" our not s/off; went
	back to news, I'sir 2/9. (Krueger)
40	HAWAII Wsipshu KDEU 2/6 0913 Fair signal w/deep fades, caw mx, promos
1	for syndicated shows, slogans include "K-Dee-On, country radio,
	AM-94". Much stronger for legal ID 1000 and back to caw. Rare KFRE
	SP made this possible, last logged this as AAHU Defore KFRE went
	NSP. CJIB wesk to nil. (The Hardy family)
000	MEXICO XEOY Mexico 0300-0308 full cell letter ID 0300 into nx
	summary and "La Nucleo Oro" slogen, xint 2/9. (Krueger)
012	COLONBIA HJZD H. Penzenu, Monteris ex 1020 per WRTVH; reported
	at 1000 in the 1/9/04 DAN-many ID's by man, some sounded like "Medio
	Penn-zen-ur"-lite SS vocal mx. Datected by severe het at 1010 o/
	Crks. "Hadio Panzenu es la emisoraaqui Monteria, la capital
	(de Cordons)squi Hadio Panzenu. It and net disappeared at 0354
	2//, good. (Frodge)
015	UNID LA 0312-0320 strong carrier but low modulation, looping more
	SA than CA so maybe Ecuador. Only item noted was Bonnie Tyler's
	"Total eclipse of the Heart" 2/9. (Krueger)
040	COLOMBIA Barranquills in very strong 2/6 0250 w/many Caracol men-
-1 -	tions, 0259 into noticias. (N. Hardy)
0110	COLOMBIA HJAI H. Tropical, Barranquilla man with beisbol, une team
01.5	is Hojos o/u HION and WHO 0352 2/2 poor. (Frodge)
0110	DOMINICAN REPUBLIC HION Sento Domingo R. Centrel ID and headlines
0.77	then man with MoR vocals o/u HJAI and WHO 0400 2/2 poor. (Fradge)
070	CUBA Guantanamo CHML man with beisbol-possible Radio Rebelde relay
	AND WOMAN WYNEWS AT 1#8) 1#8% OYU CHOK 0338 2/2 fair. (Frodge)
	Cops. I hit the capital key didn't 1?? CH AKA the shift key
072	COLOMBIA HJAG Em. Atlantico. Barranquilla noted as 1070vf in WHIVH;
	detected by severe het on CHOK. "Atlantico" ID's, LA vocals, man
	and woman anners, severe fades 0406 2/7. Heard again but much weaker
	at 0307 2/9. Good. (Frodge)
080	CUBA CHCU H. Cadena Habana. Guines man and woman W/EZL MX. Dro Nic-
	aracus spots. RCM ID 0301 and mx continues 0210 2/7 fair. (Frodge)
110	HAWATI Kihei KHEI 2/6 1600 ending instrumental mx, legal ID by man
	who then rwad the 6 o'clock news report. Poor, barely made out
	the Tu, but definitely Hawaii thanks to time check, loop bearing,
	good ex to Hawsii all morning, and daylight paths east of us. No
	etan of KHND. KPIP's SS mx nulled. (Hardy family)
260	MEVICO D Canital XEL Maxico Othi-Dis fair over/under the Sr
	Mismish w/ads, man carted "Radio Capital" ID's, SS vocals 2/9. (Kruege
	EITBULTON WAGES HOLD OUT OF THE PERSON OF TH

1555

SEVEN PASSIVE TUNERS Mark Connelly - WAIION DX Labs - January 1984

MONTSERRAT R. Cenada International (via Radio Antilles) 2259-2330 fair w/conclusion of FF, 13 then RE news. In regards to 1DAD #17 this is an experimental RCI relay from R. Antilles on 740, 930 and 2227 1450 (St. Vincent) 2230-2330. (Krueger) And on what frequency might . 1 ask?? CH

The faithful few, muchly appreciated this time around!

Hill Hardy/Nancy Hardy Aberdeen WA Harold Prodge Terry Krueger

Midlend, Ml Largo, FLA

FMG/, SE1 DX 302, 185' LW, loop R70, RF2900



#### - SAMPLE PAGE-

	Callie	leating.	Passer	Suppose Suppose?
	-		(004)	** * ** *
1006	420	Acres (N. Arless Inlant, Acres (Ar) Am 34t, 470, Briston (611	*	it have My. "belle to" 2012 Offices also in Species, Sections:
	-	So has 141, Caralten (Cit)		THE REPORT WHE THE TWO
	161	One September 100 No. 514,	×	THE THE THE TSO THE BILL September 1960 F . 1960 St. Stations S. September 1961 Marie
	-	Former (Feegeres), FI 20 See 667, Feerenge	*	in house. If had the think had been been to the think th
		Medica, Salamento	-	sylunt next some
1017	arr	Send (Milmomter) Send ingrame, 20 her Sel. Press Seint 2011	,	To pariously obtained and officer to Paymentic, France for all observe.
	15	(Specime)	0,1	2190 2130 1002 1600 1602
	438	Rain Seinft, Frage Trage Norty francheston. 20 he 16, Rain stell		160-340 Shr-140 Mil-400 ftm
1004	329	Neitherma (Franches) No. 21347, UFG, Selbenson 3005	,	"100 100" "Bening Sector"
	-	No. be 10, Being 100	*	it have MV dis- all now and MI man. Separar : challed papers. They state at the applied for translates to see tights bank, thereening area.
	-	Post Belland (Delga-State) 20 Aus 2016, & Radional State		Tip Tip that the the the girl limiter facts facilities. Of some limiter facilities of the third limiter for the limiter facilities transfer to mark from land some limiter facilities transfer to mark from land some limiter.
	13	Management (Platopungs), 95 20 See 645	*	is term. If on the former by the fact that a till (1915) "Being Surphises"
		Service (Majorpoinces), 55 Separat to 129		to boom. If you the spine to the beautier of 130, bound part 1600-6 (relegant from 130 600)
1005	***	Politication (Tyrona Sur), 81 Po Sun Myll, Religion	-	In house, Or that West 1970 bread poor think-0700 "The Scheckston"
	441	Luisse, brimer leisen Leisene leisene bertg forpe. Fr Su 456, Smiter		hearthije new (*00, abit, too 1800, Repaired valy defaulted repair
		Perjugacens, Interests	,	
	m	(Marmillanus) Appert to 200	**	beinge EPC 1831, board pe CTYCLES
	12	(Major) Supert to out	2.5	1300 1550 1400 1407, 1407 450

This latest edition (the 5th) contains full details of frequencies, powers, schedules, transmitter sites, slogans, programming, addresses, plus latest QSL policies. Much of the information has been obtained directly from the stations, and is unavailable in this form in any other publication. New information on South Pacific stations is given.

The new Guide also lists proposed new stations, and new channels, as an outcome of the Geneva Plan for mediumwave broadcasting. It includes a special listing, of Australian and New Zealand stations, arranged in order of call-sign. Relay facilities are also featured, with Networking information. The Guide is 36 pages, offset printed.

All previous editions of the Mediumwave Guide have proven very popular with DX listeners around the world, and all earlier issues were sold out. The Guide is being made available to communications listeners on a world-wide basis, and is available from:

#### Price:

Within Australia: A\$4.00. Other countries:

(a) Surface mail: A\$4.00 (or US\$4.00 or 9 IRC's);

A\$5.00 (or US\$5.00 (b) Airmail: or 12 IRC's).

AUSTRALIAN RADIO DX CLUB, PO BOX 227. BOX HILL. VICTORIA 3128, AUSTRALIA.

| Payment can be made in Australian or American banknotes, IRC's, Bank-draft, or International Money Order. Personal cheques, issued by banks outside of Australia, cannot be accepted. Payments should be made for credit of the AUSTRALIAN RADIO DX CLUB.

A passive tuner has preselection as its primary function. Preselection is of increasing importance as few DXers live in areas with no strong local stations capable of spur/image production. Preselection is especially useful to DXers using lower-priced solid-state receivers having wideband input RF amplification. Such receivers do not offer the 'crunch-proof' operation of some of the 'top-buck' solid-state gear and of many of the old tube-type stalwarts such as the HQ-180A and the R390A. With any decent length of wire capable of capturing weak DX, many receivers crumple up like an accordion and give urban and suburban dxers headache-producing local-station images and spurs instead of the desired DX.

Use of a tuner can go a long way towards solving such problems. One must remember that the gain of a passive tuner is generally about unity: the received signal is about the same as if the wire were connected directly to the receiver -- BUT, with the important consideration that, in general, spurs will be removed (thereby allowing longer-than-previously-useful wires to be

utilized).

For those wanting actual gain, use either an active tuner such as APT-2 or APT-3, or use a Broadband Amplifier module between a passive tuner's output and the receiver's input. Figure 8 of the 'Modular Phasing Systems' article gives a schenatic for a broadband amplifier card which may be readily mounted in a mini-box. Changing R5 of that card from 100 ohms to 33 ohms will beef up the gain a bit more. The amplifier's output should be routed out through a low-value resistor (about 33 ohms) in series with a DC-blocking capacitor (.1

The seven tuners to follow fall into two overall groups: Passive Series-L-C Tuners (PST's) and Passive Parallel-L-C Tuners (PPT's).

PST's have been the traditional favorite as phasing-unit input tunes. As they are tightly coupled to the antenna, tuning ranges are influenced greatly by antenna length: if many different length aerials are to be used, this may be perceived as a disadvantage, as the difficulty in memorizing or looking up a whole batch of frequency-range switch position tables would tend to slow down tuning agility in a good-opening fast-frequency-hopping type operation. The advantage of the PST, because of tighter coupling, is somewhat more signal coupled to the receiver, phaser output module, or broadband amplifier input.

PPT's offer somewhat looser coupling. The critical factor is how much antenna-to-tank coupling capacitance will produce maximum tuner output consistent with spur-rejection and good Q. In PPT designs, 47 pF generally is best throughout the MW broadcast band, although for short aerials operated on the lower half of the band, better results could be obtained with greater coupling capacitance, in the order of 100 pF or more. Similarly, if Beverage-length aerials are being used, tuning sharpness above 1 MHz could be improved somewhat by decreasing the coupling capacitor to approximately 27 pF. In general, 47 pF does well for the vast majority of medium-wave PPT situations encountered.

A big advantage of the PPT is much more reliable frequency range switch settings, settings loss influenced by antenna length than those of PST-style tuners. Furthermore, PPT's often provide sharper tuning (when not Q-spoiled) than PST's.

It has been found that use of inductive voltage divider schemes has been of great value in making the tuners 'work into' a wide variety of output inpedances.

A big problem with many tuner designs heretofore published in DX magazines is that a given tuner will work well with some receivers and yet be useless with others.

Some receivers have a very low input impedance. A portable receiver using a ferrite rod antenna often uses a coupling coil of as few as 3 turns on the rod. That coil is usually grounded on one end; the other end goes to the external antenna jack. The input impedance of such a configuration may be less than an ohm DC resistance in series with a small inductance, perhaps less than 10 uH.

Many communications receivers have input impedances in the order of 50 to 75 ohms, primarily resistive.

Car radios may have very high input impedances, sometimes principally reactive.

The inductive voltage divider principle permits tuner operation with most conceivable receiver, amplifier, or phaser-output-module input impedances, Some signal is wasted in this process, but by careful design, loss can be minimized. Using an inductance-division ratio of between 8:1 and 16:1 has proved to offer optimal performance.

Passive tuners, in general, are to be used with aerials of minimum length approximately 1/16 of a wavelength (e.g. 18.8 meters / 61.5 feet at 1 MHz.). Use of a broadband amplifier module after the tuner may allow somewhat shorter wires to be tuned. Really short wires, car whips, bedsprings, etc. should be tuned with an FET-input active tuner such as APT-2 or APT-3.

All passive tuners described hereafter offer an output-level 'gain' potentiometer (R2 of Figures 1-4, 6, 7; R1 of Figure 5). This pot is necessary so that the tuner can be operated into a receiver or amplifier without overloading it with potentially-spur-causing signals on frequencies other than that of operation. This pot adjusts the level of RF out of the tuner without noticeably influencing tank circuit Q or the peak-yielding settings of the tuning capacitor and frequency range switch.

All tuners except the Mini-MWPPT (Figure 5) provide a second pot [R1] which is used to spoil Q as well as to adjust 'gain'. This pot is generally

used only in PHASING applications: set it to CCW (max. Q) otherwise.

The main tuning capacitor (Cl of all tuners) can be either a miniature mica-dielectric type (e.g. Mouser 24TR210 or GC/Calectro Al-232) or the larger air-dielectric type of metal construction (e.g. Mouser 524-Al-227 or GC/Calectro Al-227). If the miniature type is used, the tuner can be constructed in Radio Shack's largest mini-box, the 270-238 (approx. 5.25 x 3 x 2.125 inch). Use of the air-variable capacitor will mandate a larger chassis: the Bud CU-3005A / Mouser 537-TF-779 (5 x 4 x 3 inch) would then be the preferred box.

Note that PST's require Cl to be 'floated above ground' (= isolated from contact with chassis). See the recent MWDX-2 article on ideas of how to

accomplish this.

The vernier, or fine, tuning capacitor (C2 of Figures 1-4, 6, 7) is used primarily in phasing applications. It, and its series fixed capacitor, may be eliminated from the tuner if no phasing is to be done.

Choices of vernier capacitors include the Mouser 530-189-0565-1 (no series cap. needed) and the GC/Calectro Al-225. The Al-225 is larger than the Mouser unit (it also costs more), but it is easier to mount in a secure fashion; it also turns more easily.

Inductors greater than 1 mH (1000 uH) should be Nouser 43LH or 43LJ series. Those of 1000 uH or less can be mouser 43 HH, 43 LR, or 43 LS series; or equivalent units made by J.W. Miller, Nytronics, Delevan, Caddell-Burns,

Dale, Krystinel, or other vendors.

Function switches (S1, all tuners) are simple DPDT (on/off/on) toggle types (e.g. Radio Shack 275-620). S2 of Figures 5 and 7 can be the same type switch. The 6-position / 2-pole frequency range switches (S3 of Figures 1-4, 6, 7) are Radio Shack 275-1386. Pots, fixed resistors, an fixed capacitors may be obtained from a variety of sources.

The antenna-input jack (J1) and the ground-input jack (J2) are Radio Shack 174-662 insulated binding-post banana jacks: use the red one for J1 and the black one for J2. Space J1 and J2 0.75 inch apart to permit the use of

double-plug connectors and adapters.

RF-output connector J3 (all tuners) can be female BNC, UHF, RCA phone, N. SMA, F, or other coaxial type. J4 (figures 3, 4, and 5) is Radio Shack 274-712

car jack.

Initial setup of a completed tuner entails setting length switch to normal, all pots to fully counterclockwise, and the tuning and vernier capacitors to center (half-meshed). Running the frequency-range switch through its positions will help to ascertain the proper range: that with the strongest wanted-frequency signal. The DXer should make a 'look-up table' for frequency-range switch settings (similar to Table 1 of the recent APT-2 article). If wires of considerably-different lengths will be used, more than one such table may be needed - especially with PST's.

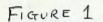
Of interest to beginners is Figure 5, the 'Mini-MWPPT'. This tuner is about the simplest design possible. Anyone should be able to throw this thing together in an hour or less. Parts expenditure should be under \$25. Every MW DXer who uses a longwire antenna should make one of these boxes. This is meant to be a 'bare-bones' type module designed for easy operation. The Mini-MWPPT is not meant to be an input to a phasing system: the Q-pot and several other phasing-oriented features have been omitted for the sake of simplicity.

All tuners described work best when operated into a receiver having a metal chassis shielding internal receiver components. Operation with portables using ferrite rod aerials may be influenced somewhat by the direct pickup of the ferrite rod. Sometimes offsetting tuner's tuning capacitor from peak can cause a dip - this is a crude sort of phasing whereby the tuner's output is phased against the ferrite rod's direct pickup. Such phasing is usually a hit-or-miss proposition, not something as dependable as the operation of a dual-tuner phasing unit.

Good grounding is important, especially for the proper operation of PST type tuners. The metal chassis of communications receivers plugged into mains is often a sufficient ground. Otherwise, use a pipe, mains, rod, vehicle chassis or other suitable ground connection. An otherwise - unused longwire or Beverage can sometimes be used as a 'dummy ground' at poor-conductivity DXpedition sites lacking other readily-available grounds.

The figures to follow should provide good starting points for experimenters - these\_include:

Figure 1 LWPPT (Longwave Passive-Parallel-L-C Tuner)
Figure 2 LWPST (Longwave Passive-Series-L-C Tuner)
Figure 3 MWPPT (Medium-wave Passive-Parallel-L-C Tuner)
Figure 4 MWPST (Medium-wave Passive-Parallel-L-C Tuner)
Figure 5 Mini-MWPPT (Miniature MW Passive-Parallel-L-C Tuner)
Figure 6 TBPPT (Tropical-Band Passive-Parallel-L-C Tuner)
Figure 7 TBPST (Tropical-Band Passive-Series-L-C Tuner)



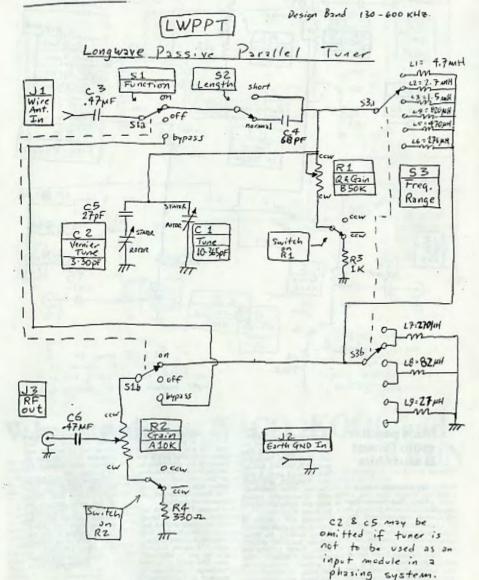
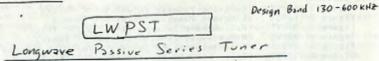
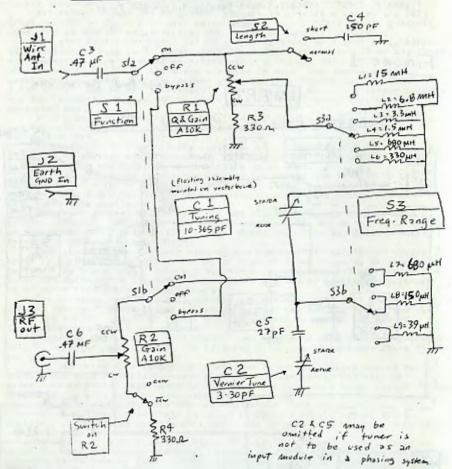


FIGURE 3

Design Band 450-2000 KHZ





#### Most popular radio format is adult hits

#### By Michael Weiss

More than one in four U.S. radio stations carry an adult contemporary for-mat-a middle-of-the-road mixture of current and past favorites-according to a survey by the 2,000-member National Radio Broadcasters Association.

The Washington-based trade organization polled nearly 7,600 stations nationwide and obtained respunses from 3,497 outlets.

Of FM stations surveyed, 27 percent have adult con-

temporary formats. Next are country music, 21 percent; contemporary hit ra-dio (previously called Top. 40), 17 percent; "beautiful music," 13 percent, and album-oriented rock, 9 per-cent. Religious, soft rock, classical, urban contemporary (previously called

soul) and oldies are carried by about 3 percent. Among AM stations, 28 percent have adult contemporary formata. An equal number broadcast country music. Other formats are news-talk, 9 percent; oldies, percent; contemporary hit radio, 5 percent, and big band, 5 percent. Religious, urban contemporary, "beautiful music" and soft rock are carried by less than 4 percent of those sur-

The numbers of outlets carrying a particular for-mat are not necessarily a measure of what people are listening to. For example, although there are relatively few news-talk stations, many enjoy good ratings. The format is, bowever, ex-

pensive to produce.

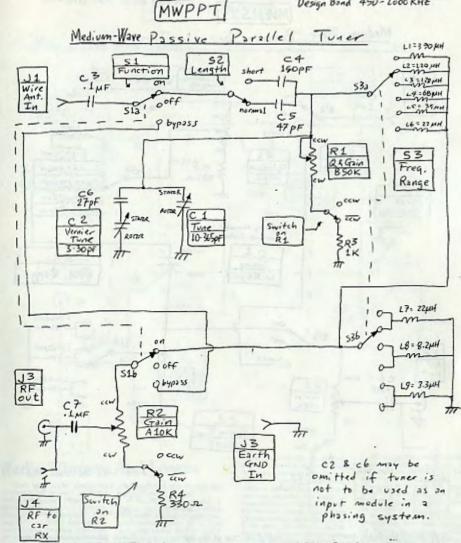
Among FM stations surveyed, 96 percent broadcast in stereo, while 4 percent of AM outlets have adopted the new technology. AM stereo receivers are not yet widely available. The study noted that "although there is some interest in its (AM stereo's) future prospects," it is not overwhelming.

More than half of AM outlets target programming to people 25 to 54 years old. About 35 percent of FM stations also design their formats for that group, but 32 percent seek listeners 18 to 49, and 21 percent have targeted 18-

to 34-year-olds.
Despite the changes in listening habits, the surof the radio stations responding to our survey seemed content with the formats they are airing. Only 4 percent of the stations indicated an interest in changing formats."
Dalias Morning News/

Independent Press

CHICAGO SUN-TIMES.



## Where radio is WACO, KOOL and munications Commission to identify the

By PENNY PAGANO Los Angeles Times Service

Radio station WACO is in Waco, Texas - that makes sense. And station KO-DI is right where you'd expect it, in Co-

dy, Wyo.

But did you know that KBET, KENO,
KLUC and KFUN are all in Las Vegas? Or that WCOW is in the middle of dairy country in Sparta, Wis., and KORN is in the corn capital of Mitchell, S.D.?

And then there are the acronyms. In Chicago, WLS meant the "world's largest store" when the station was owned by Sears, Roebuck and Co., and WGN was named by its original owner, the Chicago Tribune, for the "world's greatest news-

Broadcast call signs, often called the license plates of the radio highway, are the letters assigned by the Federal Comnation's more than 9.350 radio stations and 1,400 television stations.

They also trace the early days of radio and leave clues about how the country has grown.

"There isn't much of this folklore and tradition written down," says former FCC commissioner Rosel H. Hyde. "You have to find some of the survivors."

An international agreement in 1927 first apportioned letters among nations. U.S. domestic radio stations were as-signed K and W. Canada has C and Mexi-

Most of the early U.S. radio stations were in the East and were assigned the W prefix. As radio stations flourished, the Mississippi River became the dividing line, and stations west of the river began with K. There are a few exceptions; KDKA in Pittsburgh was one of the earliest stations on the air.

The first stations were assigned three call letters, and radio experts say only a few of them had much meaning when they were originally issued. For example, when a Des Moines station went on the air in 1924 without call letters, early listeners wanted to know who was broadcasting. So the station - where Ronald "Dutch" Reagan became a sports an-

nouncer — adopted the letters WHO.

With the proliferation of radio stations in the 1920s, the need for more call signs led to the current four-letter combina-

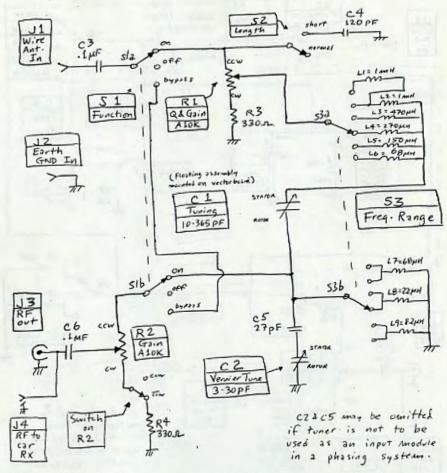
Some station owners carved their initials on their radio frequencies. WMAL in Washington, D.C., stood for the M.A.

CONTINUED PAGE 14 ->

Design Band 450-2000 KHZ

MWPST

Medium - Wave Passive Series Tuner



Leese Optical Co.: in Los Angeles, KFAC's owner was the Fuller Au-burn Cord automobile dealership. WEVD in New York was launched as a memorial to Eugene V. Debs and the Socialist Workers Party. WGAY in Washington was named for its founder, western music promoter Counie B. Gay.

When the desired letters already were assigned to other stations or sometimes to ships at sea, they were brokered, bought and moved.

Ted Turner, for example, wanted to use the letters WTBS for his Atlanta television station, but he found that they already belonged to a small FM radio station owned by the Massachusetts Institute of Technology. "We wanted to be TBS, just like CBS," he recalled recently. Turner got his way. "I gave them \$50,000 to release the call letters," he said.

Similarly, when a Washington station wanted the letters WTOP

MIAMI HERELD

to signify the "top of the dial," they got the letters from a police station in the Midwest.

Some stations like to glorify local landmarks; the San Francisco cable cars are temporarily out of commission for repairs, but listeners can still tune in to radio station KABL. Where weather is important, it turns up in call letters, as in KSNO in Aspen, Colo.; KSUN and KOOL in Phoenix; and WETT in Ocean City, Md.

WSB in Atlanta stands for Welcome South, Brother; WIOD in Mi-ami stands for Wonderful Isle of Dreams: KIMN in Denver used to be KFEL, which its original owner, Gene O'Fallon, reportedly in-sisted stood for "kan't find enough liquor." KFWB in Los Angeles, now owned by Westinghouse Broadpasting, originally belonged to Warner Brothers, and the letters stood for Keep Filming.

War II, the message became Keep Fighting, Warner Brothers. Traditionally, call letters have

been assigned and cleared for good taste by the FCC. In 1963, the commission gave itself new au-thority to settle disputes over whether one sign too closely resembled another.

Earlier this month, in the spirit of deregulation, the FCC voted to relinquish its role as the arbiter of good taste and arbitrator of disputes. In the future, disputes will be left to the courts, and the FCC's only job will be to issue new call signs and make sure that they are not already in use.

Last year the FCC reversed an earlier decision and approved the letters WSEX for a station in Arlington, Ill. Other stations are already on the air with call letters including KOKE in Austin, WYNO in Nelsonville, Ohlo, and WSUX in Seaford, Del.

VIA S. KAMP

FIGURE 5 Design Band 500-1700 KHZ Mini-MWPPT Medium - Wave Passive Parallel 220 MH 52 51 m Freq. Range Function Wire Ant. In on Copen 7 0 highbank bypass M PS PA 52 Earth GND In Tune 330 10-365pF O Lopen ] J3 RF out ooff 0946522 15,UH 3 10 uH CA. A10K Gain [Level]

## Radio Winners And Losers

VI

RF to

car RX

There was a lot riding on A:bitron's just-released fall radio ratings. At the very least, the two groups waiting for FCC approval to assume ownership of KWK (AM and FM) and KSHE undoubtedly were looking for some indication of whether the present formats were viable. And everyone who follows the business was wondering whether KHTR could continue its remarkable performance.

Here, then, the winners and losers in the radio ratings derby: WINNERS:

- KEZK pulled 8.1 percent of the overall listening audience, a number that general manager Matt Mills says is the highest in the

station's history.

KEZK's format is now mixing vocal numbers by real singers in with the elevator music, and the combination seems to have been embraced by female listeners in record numbers. The station's strongest time period is weekdays. from 10 a.m. to 3 p.m., when it is the dominant station with adults.

- KSHE returned to its firstplace position with young men, and in the process may have saved its album-oriented-rock format from extinction. The station was especially strong at night.

- KYKY turned around a sinking trend that probably would have meant a format change from adult-contemporary if it had continued. As it is, KYKY made a very strong showing among men, doubling and tripling its audience in some age categories and time periods. Yet at the same time, it lost female listeners, which puts the station in the position of having to change its sales pitch to advertisers.
- KWK (AM and FM) also

reversed a ratings slide that had been brought on by virtually no spending on promotions while KHTR got a foothold with a hotter sound and heavy spending. While showing across the board improvement, the bulk of KWK's improved numbers seems to have come from teens tired of KHTR. Even these better numbers, however, may not convince its soon-to-be owners. Robinson Broadcasting, that there's enough support in St. Louis to sustain both KWKs, KHTR and KSHE, all of which appeal to similar audiences.

- KCFM's format of hit vocals from the last five decades appears to be catching on. It showed distinct increases in almost all time/age/sex categories, especially morning drive-time, although the absolute size of the audience remains very small by comparison with its competitors. For example, among women aged 25-54 in morning drive time, about 2,700 were listening to KCFM during an average quarter hour, up from last spring. The leader in the category, KMOX, was down from previous showings, but still had an average of 33,000 listeners in the category.

— WIL-AM posted modest gains

best, but any improvement by AM music stations these days must be considered a notable achievement. While far from the audience levels of better days, the station's morning male audience seems to have staged a comeback. perhaps a function of the return of Wilkie to on-air duty in St. Louis. Tragically, Wilkie - Robert Wilkinson — was killed in an auto accident Monday.

LOSERS:

- KHTR seems to have peaked. The station lost listeners and share of audience in almost every time period and age/sex category. Promotional spending was off, which undoubtedly contributed to the station's showing.

or Louis Post

More important, though, is the hit-radio format's tendency to wear listeners out over time. The only way to keep burn-outs to a minimum is to keep the music fresh while making sure the station stays the place to hear all the hits.

In addition, KHTR's on-air personalities have been popping up lately in various menial capacities on sister station KMOX, a move that cannot help but weaken KHTR's esprit de corps And as popular as the "Hot Hit Video" TV show has been for Channel 4, it doesn't seem to have helped KHTR much.

- Speaking of KMOX, this was anything but a good rating book for the station. Compared with its performance a year ago, the station lost listeners in virtually all time periods. Some of that can be attributed to 1982's baseball Cardinals, whose world championship ways helped inflate the station's numbers above normal levels.

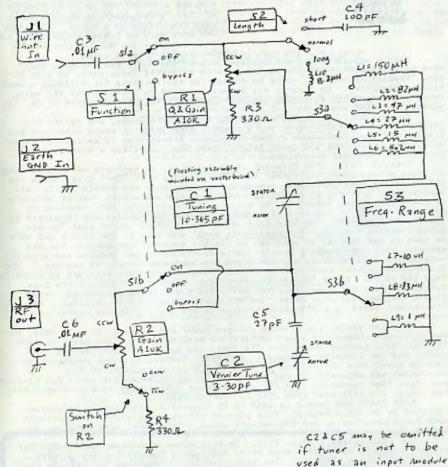
- KSD (AM and FM) also lost listeners, compared with the last rating period. The AM country station's problems were far more pronounced than the FM's.

The stations' bright spot was KSD-FM's morning drive-time, which posted gains in important male and female categories.

VIA RICH Eddie

FIGURE 7

Tropical Bonds Passive Series Tuner



FARGO (AP) - An amateur radio operator who was stranded with his wife and two children on a highway took inventory of other marooned motorists and transmit-

ted reports to a radio station until his car ran out of fuel. Gary Woodbury, Barney, left Fargo for home about 5 p.m. Saturday and became stuck two hours later in a winter storm on south-bound Interstate 29 after driving about 25 miles, he said.

about 25 mares, he said.
"It was as far as we could go,"
he said. "We couldn't see anything."
Using repeater radio facilities in
Fargo, he patched into a telephone
circuit and called KFGO Radio in Fargo from his car, he said.

Then I got out of the car and took inventory of who was out there," he said. "I got the names of all the people out there and gave them to the radio station. They put

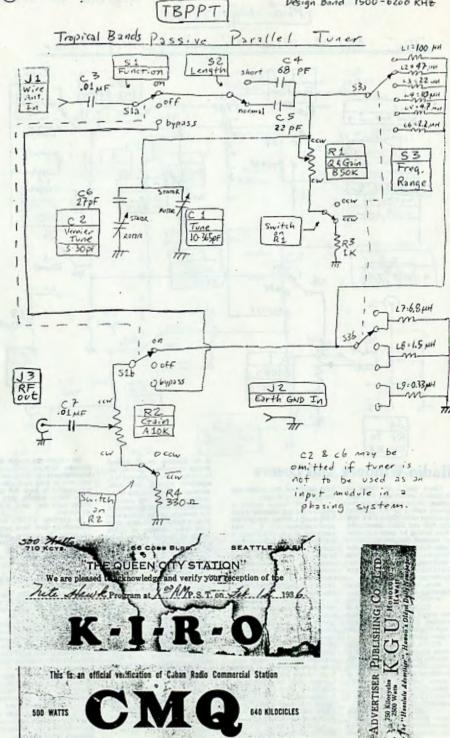
Seven other vehicles with about 21 people were stranded nearby, he

Woodbury kept sending updated reports to the radio station until his car ran out of fuel about 4 a.m.

Sunday, he said.'
Other cars stranded nearby also began running out of fuel before help arrived about 8:30 a.m. and their occupants moved from car to car, huddling with fellow travelers to keep warm, he said.

to keep warm, he said.
"Everybody made it through the night and then when help came, it all came at once." he said. "Two Richland County deputy sheriffs and two snowplows came out of Pargo at the same time."

Bismarck Tribune February 7, 1984





system.

phasing

**RADIO 1020** 

TONY FITZHERBERT 356 JACKMAN AVENUE FAIRFIELD, CT 06430

CKNX - 920 KHz



Out on the flat agricultural expanse of Western Ontario, swept by howling winter storms, and blessed by bountiful crops in the late summer, in the regional population center of Wingham is found the AM-FM-TV complex of CKNX, a broadcasting success which owes its origin to a hobby. CKNX-920 was born back on February 20, 1926, in the rear of W.T. "Doc" Cruickshank's little Main Street store.

Doc, a popular local businessman, owned "The Radio and Electric Shop". When he was not busy talking with customers or fixing radio sets, he like to read "Popular Mechanics", where he discovered instructions for building a small radio transmitter. On a snowy day he was inspired to try to build it, using spare parts from his workshop. He finished his creation and turned it on. It worked, and CKNX was born!

He then built a tiny studio in the back of the store, and called his little station "JOKE" - as it was a novelty with which he would entertain his friends and customers, when he had the time. Nobody took it seriously, least of all Doc. The idea did catch on, as there was a need for a broadcasting service with a local orientation.

Scott C. Reid. CKNX Director of Engineering, an employee of CKNX for over 45 years writes about his former boss "Our founder W.T. "Doc" Cruickshank was indeed a very remarkable man, coming from a very poor and humble family, mild mannered and friendly to everybody even after his astounding rise to eminence in the broadcasting industry. He was, for the most part, self educated in electronics and the business of broadcasting and was admired and respected by all in the industry". Mr Reid also notes in a 6-17-83 letter that "We are quite familiar with the National Radio Club and back in the 1930's and 40's we used to run special DX programs in the wee hours of the norning for its members, with very amazing results quite frequently. Our station was actually established in 1926 as an anateur broadcast band non-commercial venture." Doc Cruickshank enjoyed hearing from DX'ers. Evidence of this pleasure is found on Page 122 of the NRC's 50th Anniversary Book , where, in 1930, at the time, Station 10BP, still located in the Radio and Electric Shop verified report from a very accomplished DX'er, and NRC member, the late Joe Brauner - Mr. Cruickshank added to the printed message on the QSL a gracious handwritten note.

Over the years, the station changed power and frequencies. In 1933, it was granted a commercial broadcast license with a power of 100 watts on 1200 kHz Mr. Reid further notes that "In 1941, the power was increased to 1000 watts, and the frequency changed to 920 kHz. Subsequent power increases in daytime power were carried out in 1959 (2.5 kw) and in 1968 (10 kw). Co-channel and adjacent channel station allocations have (and still do) limited our night time operation to 1 kw, and probably will always be a problem." Over the years, the call went from JOKE to 10BP to CKNX.

CKNX Radio was joined in 1956 by TV Channel 8 - the result of another interest by Doc Cruickshank. This pioneer effort today serves Wingham with both local programming and CBC network shows. It's local news coverage is superb.

Doc Cruickshank died in 1971. Shortly after his death, CKNX Radio and TV was purchased by the London Free Press Publishing Company, owners of CFPL AM-FM-TV in London, Ontario. The operation of the stations was left to the nucleus of the management personnel hired by Doc Cruickshank.

In May, 1977, CKNX-FM joined with CKNX family. FM-102 today features contemporary music and extensive regional news coverage.

CKNX broadcasts a country music format. In early days, it was known as the "Voice of Community Service", "The Ontario Farm Station", and "Home Town Radio". The country format is augmented by extensive local news coverage, earning the station the role of an essential, and enjoyable part of the life of the 3000 Wingham residents, plus hundreds of scattered rural denizens in the farming hamlets scattered up an down the eastern shore of Lake Huron.

In March, 1962, a fire destroyed both the radio and TV facilities. After a brief silent period, CKNX, returned to the air from temporary facilities. Today a modern broadcast complex serves the agricultural communities of Western Ontario. The transmitter facilities are located on Highway 4, 3 1/2 miles South of Wingham. The 10,000 watt day pattern emits from three 220 foot high towers in line East to West, and the 1000 watt night pattern originates from two 220 foot towers, in line North to South. The night signal has been heard - and verified in both Windsor and Fairfield, Connecticut.

(19

Today CKNX-920 is both a tribute to the imagination and creativity of its founder, Doc Cruickshank, and an integral part of th town of Wingham, as it informs and entertains its listeners, with up to the minute news, and fine country music.

The Editor would like to thank Scott C. Reid. CKNX Director of Engineering and friend of the National Radio Club, for his help in sharing both information on the stations, and his memories, for this profile. He took a great deal of time in a June 17, 1983 letter to develop this information, and, in addition, acknowledges reception reports with a very detailed verification. It is also fitting to recognize CKNX as a friend of the Club - and the hobby for over 50 years.

### A COLLECTION OF CLASSICS

RADE and UNUSUAL OSL

-------

The Verification Section was essigned to me since I am the fortunate trustee of two of the largest verification collections ever anassed, those of the late Job Fraunce and Norm Regular. In addition, members were asked to submit copies of their prized veries for possible inclusion in this section. The decision of what to include was difficult indeed, diven the few pages here and the 10,000-glus verifications on hand Unfortunately norm of those sundited had to be left out singly because the Copy quality was not sufficient for reproduction. Since the copy of the copy

AMATEUR BROADCASTING STATION 10 B. P.

THE RADIO & ELECTRIC SHOP

WHENAM, ON!

May we have the pleasure of hearing from you

nt

manuficate ma manual per ging

Left: In radio's infancy all stations were amateurs. By 1930 one still was in Canada. The "only town" statement refers to "town" as oppossed to "city".

## CONTESTS

ROBERT KRAMER 6416 N. RICHMOND CHICAGO.IL 60645

								TANDI			
						3.5	of 2	2/12/8	4		
		A	В	C	D	E	F	G	H	I	
	George Sherman, MN	431	49	44	0	0	0	8	5		
	Bill Hardy, WA	258	31	0	0	0	0	6	7	07	
	Jim Renfrew, NY	251	42	0	0	0	0	7	3	04	
	Paul Stephan, CT	250	32	0	0	0	0	7	4	03	
ï	Molan Stephany, NY	245	32	0	0	0	0	2	3	03	
	Nancy Hardy, WA	233	31	0	0	0	0	5	2	07	
	Armin Littek, ON	170	37	0	0	0	0	4	3	03	
	Karl Forth, IL	89	39	0	0	0	0	2	Ó		
	Bruce Conti, RI	61	38	0	0	0	0	0	2	03	
	Mike Hogan, IL	46	21	0	0	0	0	1	0		
						×	ONCOR	TESTA	NT		
	Me	550	52	46	42	0 -	0	4	-5		

See last report to determine the meaning of the symbols.

# VERIFICATION GAME

Wayne Heinen 1642-C S. Idalia Cir. Aurora, CO 80017

40	CJSB1u	Zella Dawkins Coordin-	COLU	1220	PAREQUE	Dave Solonson M	
40	Caspin	ator of BC Services	JM	1220		Don H Martin CE	i
	WLIX1	John Bennett CE	PS			Barry Sinmons GM	ì
50	KFRM1	Abram Burnett	JH		WFTN1	Gloria Muraszko	
70	WNAX1	Jerry Oster OpM	JH	1260	KGIL1b	Harvey P.D. Hetland COp	
90	WOW1	Harry C. Stutzman CE	JH	1270	KIML1	Richard Luth CE	
	WRTH1	James E. White CE	JH	1280	WANS1	Jim Graham CE	K
00	WCAOq	Erich Stummingal ESu	JM		WSAT1	E.L. Sherman VP/CE	
10	KRKEq	Robert Leech CE	JH		WHVRq	Daryl Hancock CE	-
			KG				ì
40	WMS01m	Kaye DeAtley SalesM			WMCP1	Ton Williford PD	
90	CBUq	D.J. Harner	WH		WSBL1	Harry Hyman GM	
10	CJRN1	Wm McDougall CE	HH	1300	WXPXr	Paul Wensko E	1
40	WBAMq	Thomas Jones III CE	PS		1	Neil J. Rodino GM	1
	WGSM1	Marc Sophos ACE	PS		WAVZ1	Bill Elliot CE	Ŧ
47	JOIBq	u/u	WH	1310	WNSY1	Will Bevis CE	i
50	WHEBq	Tony Vaccaro CE	PS	1310			i
					1	Herman Wood CE	
80	WABS1m	Steve Cross	KG	1320	MOIKID	Bill Mize GM	1
90	KKBQ1	Jon Bennett CE	JH		KWHNq	Ken Blevins CE	
	WAEB1	Wayne Frederick ACE	PS	1330	KWL01n	Mike Soar CE	4
00	WLADq	u/u CE	PS		WROD1	Sheila A. Mullett OFM	
	CHAB15	Mike Soar CE	JH		WGADn	Troy Pennington	
10	KAFE1	Gary Kabrick CE	JH	. 350			-
					KRNTq	Bill Swenbergen CE	
20	WAITq	Dave Dybas CE	PO		MLOVP	but no verie!	
30	WCC0q	u/u	PS		WANC1	Lester Seidenberg CE	,
50	WYDEL	u/u CE	PS		WWBR1m	Jonathan Timko PD	
90	WHNC1	Terry Frietag CE	PO		WRKMn	Reggie L Honey P	
00	KHOZ1		JH		WNVAI	John R DuVal IV PD	
10	KPOFq		JH		WNLKm		ì
	KAMD1		JH				
		Bill Shearly SalesM			KSCJq	u/u CE	
30	WFMDfm	John Fieseler COp	JM	1370	WGOHmr	u/u	
0	WEC01n		/JM		KDTH1m	Marc Karrnann CE	
50	KRRP1b	Ray Arthur GM	JH		KAWW1	Charlet E Hovell M	1
	KJRG1	Kathy Banning Secy	JH		WMYD1	Lee Blair GM	1
	WQBE1	Lester Lovejoy CE		1390	WTOB1	Tom Findley	
	WPEN1fm		PO	1300			
					WBBX1	Mark Ericson PD	!
60	WPCN1	Janet Buynak SM		1390		Bud Williamson ACE	1
	WSBYq	Bernie Spanks CE	KG		KMRY1	John G Enoch P	
	WWGR1	Bill Shipp AstM	KG	1400	WAMQ1	Neil Hart GM	- 1
80	WTRYf	David Abdoo CE	PO	1410	WDOE1n	Dan Warren PD	
	KMBZ1m	Dale Wolf ESu	BP		WIZM1	Gene Vehling CE	,
	KFWB1m	Richard Rudman EngM	JH		KCL01		
000	WXTN1	Fanny Cothran EngM	JH	1/00		Dave Barnett CE	
,,,,				1420		Michael Flenning DoE	
	KKIM1b	Joe Muench OpM	BP		WINII	Dale Adkins TD	,
010	KBBW1	Randall B Tighe CE	JH		WCEDq	Larry Fisher CE	
	KXEN1n	Bernie Harville Jr GM	JH		KXOW1	Bob Henderick SalesM	
	KINDI	Nelson Rupard	JH	1430	KKOZ1	Bob Moore DJ	
030	KCTA1	Nathan Lindsey DoE	JH		KEES1		1
050	WHGIlm	J Christopher Dixon	PD				
. 50			JM		P	Paul Mapes E	
	WJSJ1	Chris Roberts PD			WDEX1	Bob Watkins GM	
	WGATIn	Mike Long COp	JM		WIREq	0/0	,
	WPAG1	Patrick Seeney ACOD	JM	1440	WZYXrm	Joe Brewer VP	
060	WHFBqm	Steven R Messer CE	KG		WNYG1		
	KLSM1	Bill Atwell PD	BP	1450		Marvin Pincus CE	
70	WKOK1	John Keller Jr VP/ENG		-	WNWZ1	Tyrone Dickerson P	
	WINAI	Pat Wilson PD	JM	1460			
				1460		Jack Kerman Nx	
	CBA1q	Sylvia Roy	PO		WEZJ1	Paul Estes GM	
080	WYCM1	Sam F Cooper VP/GM	KG		KRNY1	Richard Roessler GM	1
10	KTEK1b	Virginia Eernisse Bu			KSOL	Timothy Boots CE	
	WHIMr	u/u CE	PO		WWWS	Sue Bahner	
20	WIZY1	Al Parker OpM	KG	1470	WRGA		ı
	WNYS1b	Ray St. James PD	KG				
30	KY001	u/u	BP			P Dale Ware VP/GM	
20						Mrs Helen Dean GM	
	WSJP1	Greg DeLaney	JM		WSR01	John Swiridale	
	WAMG1	Lee Raines GM	JM			Tom McAuliffe	
50	KNED1	Lee Anderson COp	JH	1480	KBEA1	Robert Ingran	
	KSAL1	D.A. Englhardt	JH		KLE01	Terry Michaels Op	
170		u/u CE	JM		WAME1	Fred Roberts CE	
	WJCC1	Steven J Callahan CE	KG				
no						Tom Crockett CE	
90	WHIYE	Rice Towry	KG	1510	KDVE1	Dan Hubbard GM	
	WLIB1	Paul Sanchez CE	PO		WAUK1m	Rick Gundrum PD	,
210	KREW1b	u/e M	WH	1520	WKZQ1	Bill Files CE	1
220	KLC01	Betty Oreiner APD	BP.		KNB01	Will Shell DJ	į
		Don Zimner GM	KG			R.M. Simonsen CE	
	KZYM1						

	KDDA1b WOKZ1m KMYZ1 KLOV1	Charles White OpM John A Bauer Bruce Allen PD Gary Foxe OpM Robert Wolf CE Steven Soldinger Ed French P Tony Edmondson DJ Don Kern Allan Eastham GM Walter Brink Vicky Shaw OffM Andy Loomis u/u	JH JH JM	1580 1590 1600	WBGB1 WAMB1 WLIMQ WVKO1 WMIM1 KQYKr KHEN1 KOGT1 KMDO1 WRBN1m WIXYP	Eric Schecter ACE Ken Courtright GM Joseph Simon PD u/u VP John Marocchi David Donlin P/GM u/u Tom Keith NxD Jin Baker PD Tim McKenney M Don Jones CE Mike Williamson TD Tom O'Toole MxD	JII JM JM PS PS PS PS BP JH JH JM JM JM
--	------------------------------------	--	----------------	----------------------	--	--	---

Contributors: WELCOME! to new Contributors!

John Herman - OK JH Paul Stephan - CT PS Patrick O'Connor - NH PO

Thanks to my continuing supporters!

WH is the typists

If one combines the abbreviations you can obtain the most used titles as found on most verifications. Of course as soon as this hits print ten more will show up. Try to keep list for reference. WH



LETTER BEHIND THE NAMES MEANS:

A - Announcer (if used alone)
A - Assistant (when combined)
C - Chief
D - Director
E - Engineer
G - General
M - Manager
O - Owner
P - President (alone)
- Program (combined)
T - Technician (if used alone)
- Technical (when combined)

Doubles & Triples
Eng - Engineering
Bus - Business
DJ - Disc Jockey
Mx - Music
Nx - News
o - office
OF - Office
Op - Operator (alone)
- Operation (C)
Secy - Secretary

Secy - Secretary S1s - Sales Su - Supervisor Sx - Sports

Trf - Traffic VP - Vice President



NEEDED RADIO INVENTIONS

by Irving J. Saxl, Ph.D.

With the new year upon us , and based upon the backround of a great array of new devices and methods which are made possible by the advanced radio techniques of the past year, dreams serge coward toward new possibilities which some luck amateur (experimenter) may some day attain. RADIO NEWS often receives inquiries from men who believe they have found new things, from persons who feel that there is a definate need for certain inventions, and last but not least, from industries which are looking forward to new designs that will increase the range of radio and various electronic applications and will create profitable enterprises.

#### CAN YOU INVENT THESE?

- 1. An entirely new and practical low-priced television system.
- 2. A combination of known television ideas into a new and practical low-priced television system.
- 3. A portable pocket-size transmitter and receiver with self-contained power supply capable of working a distance of 25
- 4. A perfect system of eliminating static in radio reception that can be attached to any set.
- 5. An automatic volume-control system that entirely eliminates fading and that would bring in all stations, local and distant, with exactly the same volume.

Some you win, some you loose, and some fall in the same catagory as finding a cure for the common cold....

## **Boy Shoots Xmtr**

by A. Adam Glenn

Norfolk VA ... A 16-year-old male recently shot up the new transmitter site of WTAR/WTLY AM-FM with a rifle, causing over \$7,000 in damages.

He was arrested by Hampton, VA police several days later, and has since pleaded guilty to charges of breaking and entering, and property destruction.

The suspect, whose name is being withheld because of his age, is now in his parents' custody, according to Police Lieutenant B.G. Pierce.

Police are also working on the probability that another person was involved in the crime, although no one has yet been charged, Pierce said.

The apparently motiveless act occurred late afternoon 29 November at the site outside Norfolk, which was being prepared for full time use in early lanuary

The station suffered damage to remote control grar, processing equipment, oscilloscopes, and STLs/TSLs at the site, according to WTAR CE John Zaun.

'There were over 30 rounds fired,' Zaun said. Therre was at least one slug in each piece of gear, and the remote control unit had 10 shots fired into it."

He took out the oscilloscope to use for target practice." Zaun added, "and also cut every wire at the site, including the phone lines.

The youth gained entrance to the transmitter building, described by Zaun as "cement block with a solid steel door." by prying open the louvres which ventilate the transmitter's emergency gen-

The station still intends to begin using the site full-time in late lanuary, but hopes to insure future security there with the addition of an alarm system, sensors on the doors and bars on the louvred

Despite these measures, Zaun worried that "when you're out in the boonies, there's just not very much you can do."

But any radio station is really vulner-VIA FRED VOIGE



WNAX-570 YANKTON, SO. DAKOTA STOTE

5-STATE RADIO





Your bids go to the Address at the right and NOT TO NRC HQ. Orders for direct sale items and for All bids should be sent to:

SAM BARTO 47 PROSPECT PLACE BRISTOL.CT 0 6010

MAKE YOUR CHECKS & MONEY ORDERS OUT TO "HAP"

This page brought to you as a Public Service of the NRC

HAP DIRECT SALE ITEMS: The following stickers/decals are available for \$.25 each or any 5 for \$1.00: RB1(large)(amail), Die Lutherische Stunde, CFRB, Radio Bare, Radio Superstar, KVDB, CFCR, CKUA, CFRN, CFCN, CKRD, CKGY, Radio Monte Carlo, Radio 210, WEMP, Disco-99, WBWA, EMR, KPLU, WXQR Amateur Radio, Radio Reporter, W.INC, WBIW, Radio Tees, RCI, RFI(blue) (red), 6KY, Radio Vatican (small)(semi-cir)(square), MCBW, KCFM, ANARC(small), CFTI, RNE, WDR(rock)(small), Radio 270, KFOG, 55-Country, Radio Derby, Fete Quattro, Polskie Radio, ORF, Radio Budapest, Metro Radio, KBOI, KPNN

KDKD, WEZX, WCFL, WLUP, KROY, KLOL, KLOS, WINS and ESPN. MAP BID ITEMS: ITEM #348:Radio Veritam(Philippines)1984 staff calendar, m/c-very nice:#349: Metherlands World Broadcasting - a feature publication by R.D. Baslach. This book contains @ 110 pages on the history of radio in Holland with dozens of old and rare photographs! #350:Radio Obrera(Spain)sticker(3.5"cir)a/c.#351:4XD(New Zealand)sticker(1.5x7.5")blue, white-one of the oldest stations in the world !! #352:KAIM(Hawaii)sticker (4x7")blue, white. #353:Radio Vatican 1954 calendar in English, m/c-very mice. #354:Radio Vatican 1984 calendar in French, #355: Radio Vatican 1984 calendar in German, #356: Radio Vatican 1984 calendar in Polish. #357: Radio Vatican 1984 calendar in Italian. #358: Europe #1(FRC) sticker (2.5x7.5")blue, BSW.#359:HCJB-FM(Ecuador)sticker(3x8")B&W.#360:Radio Forth(Scotland)decal (5x6")m/c.#361:Radio 3 Stuttgart (FRC)sticker(5x5")m/c-nice!#362:Deutschlandfunk(FRC)sticker(5x6")n/c.#363:Eadio Caymon sticker(3.5x12")orange,B&W-rare!#364:Eadio Nottingham(UK) decal(3x7.5")n/c.#365:Radio Munich(FRC)decal(4x6")blue,white.#366:Radio Tirol(Italy)sticker(3.5x4")red.B&W.#367:Radio Libertaire(France)sticker(3.5x4")B&W-mice!#368:CFR8 staff photo card(3.5x5.5")B&W.#369:KNUI(Hawaii)sticker(4x7.5")red,white.#370:WYFR sticker(4x6") yellow, B&W.#371:4CC(Australia) sticker(6.5"cir)m/c-beauty!#372:KOME large 1984 wall calendar(13"x3')m/c-beautiful!!#373:Radio Mexico sticker(3x4.5")m/c.#374:Radio Nacional do Brasil sticker(3.5"cir)m/c-nice:#375:Peter Flowers Hadio(Italy)sticker(3x6.5")m/c.#376: VOA sticker(3"cir)red, white, blue. #377: Radio 210(UK) decal(4.5"cir)m/c.#378: Radio Italia metallic sticker(4.5"cir)m/c-beautiful!#379:Bayerischer Rundfunk(FRG)sticker(4"cir)blue, BSW.#380:Italia-TV sticke (3.5"cir)m/c.#381:CFOX sticker(4.5"cir)m/c-beauty!#382:IBC(Italy)sticker(3x5")white,purple.#383:Radio Vatican QSL card(4x6")m/c.#384:Radio Mediterranean(Malta)sticker(4"cir)red, white, blue, #385: Radio Luna Perugia(Italy)sticker(3x4.5")blue, BSW.#386:Radio Koper-Capodistria(Yugoslavia)sticker(2.5x3")m/c-rare!#387:Peter Flowers Radio sticker(2x19")white, green-nice:#388:4FFF(New Zealand)sticker(3x6")red,white.#389: Red Bose Radio(UK) decal(5x5")m/c.#390; Radio Veritas sticker(3x10")yellow, B&W-rare!#391; Radio Japan 3 different QSL cards(4x6")m/c.#392: Voice of Asia(Taiwan)pin,m/c-beautiful!! #393:Radio Tirol Wundervoll(Italy)sticker(2.5x4")red,B6W.#394:Radio West(UK)pen,m/c-nice! #395: Voice of Tomorrow(US-Pirate)QSL card(3x5")B&W.#396:BBS1 Radio(Italy)sticker(1x7")m/c. #397; World Scout Bureau QSL card(3.5x5") red, B&W. #398: RBI(DDR) cloth pennant (5x8") red, blue, white, #399:RBI(DDR)cloth pennant(6x10")n/c with Bear emblen.#400:REE(Spain)cloth pennant (5x9")m/c.#401:RAE(Argentina)paper pennant(5x8")m/c-nice!#402:Radio Nederland address book (2.5x3") red, gold.#403: Radio Nederland money pouch(3x3") B&W.#404: WVWI (Virgin Islands) sticker(3x5")blue,white.#405:Radio Milano International poster(12x16")m/c-nice!#406:Radio 210 metal badge (1.5"cir) red, B&W. #407: Radio 210 pencil, red, gold. #408: Radio Nederland cloth pennant(4x6")m/c.#409:RBI(DDR)plastic litter bag(11x17")m/c.#410:Radio Banconara Sciu(Italy) metallic sticker(2x4.5")m/c-very nice!#411:Radio Veritas cloth pennant(3x5.5")blue, white. #412: Radio Veritas cloth pennant(4x8") m/c. #413: Radio Veritas cloth pennant(4x8") yellow, blue, white, #414:HRVC(Honduras) cloth 22nd Anniversary cloth pennant(6x11") blue, B&W. #415: Radio Korea double sided paper pennant(4x8.5")m/c-nice:8416:Radio Tampa-NSE(Japan)sticker silver,black-sharp:0417:Radio Clyde(Scotland)decal(2.5x23")red,white.0418:KTAC large m/c station poster.#419:Radio Sweden poster(12x16")m/c. #420:ANARC metal badge(1.5"cir)B&Wrare: #421: BBC-World Service(UK) metal badge (1.5"cir) red, white, blue. #422: MDR Radio(FRG) pen, blue, B&W. #423: RBI (DDR) stick pin, blue, white. #424: Radio Polonia stick pin, red, white, silver. #425:6WF(Australia)cloth sew-on arm patch, blue, white, orange-very nice:#426:South Coast Radio(Ireland)decal(6x6")red, B6W.#427:4ZA(New Zealand)sticker "Kiwi Bird with Flag"(5"cir) m/c-beautiful!! Hope there is something here for you!

ADDITIONAL DIRECT SAL" ITEMS: The following items are available at the quoted prices: WLPX. WMMR and WMET metal badges at \$.25 each; mini-B&W posters at \$.25 each from Radio London. Radio Nord, Voice of Syncon, Radio West, Radio Duomo (car) (woman), Radio Caroline and Radio Fil Rose; RBI and Radio Peking book markers at \$.25 each; MMMR book covers at \$.25 each; metal "Antenna" badge at \$.25 each; RCI plastic station pennants at \$1.50 each; MMNE large litter bags at \$.50 each; RCI DJ photo card at \$.50 each; KIVI-TV plastic litter bag at \$.50 each. HAP THANKS: A very big thank you goes out to the following people who have made recent donations: Dave Platt, Edward Mitkus, Charles Foxx, John Bryant, Don McCants, Joe Talbot, Josh Gaffin, Arthur Cushen, Michael Tuggle, Mark Warner and Bill Matthews. Thank you...Sam. Almost forgot one of my good friends Don Moore down Honduras way.

ADDRESS: Please send your orders for direct sale items and your bids to Sam Barto, 47 Prospect Place, Bristol, CT. 06010 USA. Please try to keep a minimum order on direct sale items to at least \$3.00. Thank you ... Sam.

REQUEST: We wish to make the 1984 ANARC Convention in Toronto the best ever. We desperately need any and all types of radio and TV station promotional items. These include stickers, decals, pens, pins, mugs, books, records, T-Shirts, etc. We are asking you, our supporters and friends, to help us out. Please contact your locals stations to see what may be available. We wii greatfully accept all donations ... San.